

WHAT IS CLAIMED IS:

1. A modem installed between a subscriber's terminal and an external modem for relaying communication, the modem comprising:

a timer for determining data transmission speed from the external modem; and

5 a timer controller for performing a training process for determining data transmission speed of a line connecting the modem and the external modem, the timer controller determining a clock value for the timer based on the data transmission speed of the line determined by the training process.

2. The modem of claim 1, wherein the timer controller determines the clock value of the timer whenever the modem attempts a connection to the external modem.

3. The modem of claim 1, wherein the line is a telephone line and the modem is Asymmetrical Digital Subscriber Line ("ADSL").

4. The modem of claim 1, wherein the external modem is installed at a main station that performs Asymmetrical Digital Subscriber Line ("ADSL") service to a plurality of subscribers' terminals.

5. A method for adjusting data transmission speed of a modem in a subscriber's terminal and an external modem for relaying communication therebetween, the method comprising the steps of:

performing a training process with the external modem for determining  
5 data transmission speed for transmitting data to the external modem when the  
modem attempts a connection to the external modem;

setting a clock setting value of a timer for synchronizing the data  
transmission speed to the external modem corresponding to the data  
transmission speed determined by the training process; and

10 sending and receiving data with the external modem during the  
connection to the external modem according to the clock setting value of the  
timer.

6. The method for adjusting transmission speed of a modem of  
claim 5, wherein the clock setting value of the timer is adjusted whenever  
connection is established between the modem and the external modem.

7. The method for adjusting transmission speed of a modem of  
claim 5, wherein the modem and the external modem is connected through a  
telephone line and the modem is an Asymmetrical Digital Subscriber Line  
("ADSL") modem.

8. The method for adjusting transmission speed of a modem of  
claim 5, wherein the external modem is installed at a central office performing  
Asymmetrical Digital Subscriber Line ("ADSL") service to a plurality of  
subscribers' terminals.